

We claim:

1. A prosthetic implant for a bone structure, the implant comprising:

5 a base including at least one stem adapted to engage at least one void created in the bone structure, the stem having an exterior peripherally surrounding an interior lumen, and

a pin that fits into the interior lumen and expands the exterior of the stem.

2. An implant according to claim 1

wherein expansion of the stem compresses surrounding bone structure, to thereby secure the base to the bone structure.

3. An implant according to claim 1

wherein the base includes several stems, each having an exterior peripherally surrounding an interior lumen, and

5 wherein several pins are provided to fit into the interior lumens of the respective stems to expand the respective exteriors.

4. An implant according to claim 1

further including a cap from which the pin depends, wherein fitting the pin into the interior lumen of the stem couples the cap to the base.

5. An implant according to claim 4

wherein the cap includes a bearing surface, and wherein the pin depends from the cap from a surface that faces away from the bearing surface.

6. An implant according to claim 4

wherein the cap and base include nesting surfaces that rest together when the base is coupled to the cap.

7. The method of mounting a prosthesis in a bone structure comprising the steps of:

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providing a prosthetic implant that includes a  
base having at least one expandable stem having an  
5 exterior peripherally surrounding an interior lumen,  
locating the implant on the bone structure by  
placing the stem into a void formed in the bone  
structure, and  
securing the implant by inserting a pin in the  
10 interior lumen of the stem to expand the exterior of  
the stem within the surrounding bone structure.

8. A method according to claim 7  
wherein the bone structure comprises a glenoid  
cavity of a shoulder joint.

9. A method according to claim 8,  
5 wherein, prior to the securing step, the pin is  
releasably coupled to an insertion tool,  
wherein, during the securing step, the insertion  
tool is manipulated to insert the pin into the stem,  
and  
10 wherein, after the securing step, the pin is  
released from the insertion tool.

10. A prosthetic implant for a glenoid cavity of a  
shoulder joint comprising  
a base including at least one stem adapted to  
engage at least one void created in bone structure in  
5 the glenoid cavity, the stem having an exterior  
peripherally surrounding an interior lumen, and  
a pin that fits into the interior lumen to expand  
the exterior of the stem within surrounding bone  
structure to thereby secure the base to the bone  
10 structure.

11. An implant according to claim 10

2025 RELEASE UNDER E.O. 14176

further including a cap from which the pin depends, wherein fitting the pin into the interior lumen of the stem couples the cap to the base.

12. An implant according to claim 11

wherein the cap includes a bearing surface, and  
wherein the pin depends from the cap from a  
surface that faces away from the bearing surface.

5 13. An insertion tool for use with a prosthetic  
implant for a bone structure as defined in claim 1  
comprising

a handle, and

10 a carrier coupled to the handle and configured  
to hold the pin for insertion into the stem.

14. An insertion tool according to claim 13

wherein the carrier is configured to release  
the pin in response to manipulation of the handle.